MINUTES OF ANSI N14 ANNUAL MEETING

May 23, 2002
DEPARTMENT OF ENERGY HQ
WASHINGTON, DC

- Rick Rawl called the meeting to order at approximately 8:30 AM. The content of the proposed agenda was approved with the stipulation that the order of presentations may vary from the agenda to accommodate presenters' schedules. The agenda is shown in Attachment 1.

- The welcome, from the Department of Energy (host for the meeting), was delivered by Bill Lake.

- Following the DOE welcome, the Chairman, Rick Rawl discussed the findings of the special audit of the N14 Committee conducted by ANSI in November 2000. It was noted by Mr. Rawl that the findings were more serious than previously reported at last year's annual meeting. Several findings had to be resolved before ANSI would take any further actions on N14 standards. These findings, discussed below in more detail, involved balloting, membership balance, and errors in submissions of procedural documents.

  1. There were two problems identified with ballots: (1) more complete documentation for the resolution of negative ballots was needed; and, (2) numerical counts of affirmative votes for N14 actions were often less than the required fraction of the active membership (due to unreturned ballots).
  2. The membership balance (based on "membership categories") of N14 was questioned. There were only three membership categories and ANSI procedures require that no single membership category represent more than 1/3 of the membership. Consequently, it was necessary to: revise the membership categories; vote on and approve the new membership categories; and have each N14 member indicate their selection of a new membership category.
  3. Action on an addendum to N14.1 was being processed at the time of audit. It was held up pending resolution of audit findings and improvements in procedures, including correction of errors in ANSI-required submission forms. [The forms include: PINS, the Project Initiation Notification System; and BSR-8 and BSR-9, which are the Board of Standards Review forms for balloting/public review, and approval for publication, respectively.]

- A number of points were raised during discussion of the findings. These included the following:

  1. ANSI issues "Model Procedures" that are updated periodically. To maintain the status of an Accredited Standards Committee, N14 has chosen to follow current ANSI procedures and is obligated to do so.

2. The audit findings affected the voting and approval phase, not writing and development, which were able to continue while the audit findings were resolved. The vote, comment, and comment resolution procedure start at submittal of the BSR-8 forms to ANSI and must be completed in one year. Additional processing time requires ANSI approval of an extension.

- The following procedures will be implemented by N14 to resolve the audit findings:

  1. Resolution of negative ballots will be fully documented. This will require the writing group chairs to take an active role in working with members that cast negative ballots to resolve the ballots and get written confirmation that the negative comments have been resolved. Alternatively, if a negative ballot cannot be resolved, N14 must document that the ballot and supporting comments have been considered and overridden and must inform the balloter of the appeal procedures available to him/her.
  2. The membership roster has been updated. New membership categories have been defined. Members were asked to select from the new interest categories, and those not responding were moved to a non-voting category.

- The discussion on the audit and its findings raised a number of points. It was noted that more participants from industry in general and carriers in particular should be encouraged to participate. It was suggested that the membership areas Transport Industry and Nuclear Industry be combined. It was also suggested that the membership area of government agency be divided into, those who regulate (e.g., DOT and NRC) and those who are involved in development and shipping (e.g., DOE).

- [Action Item, AI-1]. Earl Easton agreed to accept an action to study the possibility of dividing the Government Agency membership area by the functions discussed. He will report his recommendations at next year's annual meeting.

- Discussion of how to handle inactive voting members followed. Several options were addressed and examples of how other Standards Development Organizations (SDO) handle this issue were offered.

- [Action Item, AI-2]. The N14 Secretariat will check with other SDOs on their procedures for non-voting members, and propose procedures for handling such members.

- [Action Item, AI-3]. R. Boyle suggested improving the e-mail vote notification system to allow e-mail voting. Currently only notification is by e-mail, while voting response is by FAX or regular mail. Mr. Boyle agreed to develop a proposal for such a voting procedure for presentation at the 2003 Annual Meeting.

- [Action Item, AI-4]. Phil Gregory noted that he has recently changed e-mail addresses. As a result of the change he did not receive ANSI N14 notices about membership categories, and was moved to the Information Only category. He asked to be moved back to the Voting

member category. Since this seemed to be an administrative matter, it was agreed that he could do so without balloting the membership. The N14 Secretariat will work to resolve this.

- Rick Rawl presented information and led the discussion on the status of N14 standards activities. The writing group chairs present gave the reports on their activities. The reports were presented in two groups: Group 1 – Approved Standards; and, Group 2 – Projects under development. A summary table of the status of projects is attached as (Attachment 2). Where discussion took place or action items were assigned they are noted, otherwise refer to the summary table for descriptions of the projects and status.

  1. Group 1, which included N14.1, on UF_6; N14.5, on Leakage Tests; N14.6, on Special Lifting Devices; N14.24, on Barge Transport; N14.27 on Carrier Responsibilities; N14.29, on Guidance for Writing Operations Manuals; and N14.30, on Semi-trailers, was discussed first. ANSI N14.32, which is a project under development (Group 2) was discussed in this group for the convenience of Mr. Larry Fischer, who Chairs N14.5 and N14.32 subcommittees.

     - Chair of N14.1 is comparing the ANSI Standard with ISO 7195.

     - [Action Item, AI-5] Larry Fischer has agreed to present a detailed discussion of ISO and how ANSI and other US organizations participate in ISO standards development and approval.

     - An inquiry was received by N14.5 concerning transport/storage packages that are stored for more than one year. The N14.5 Chair, Larry Fischer is considering reconvening the N14.5 subcommittee to resolve the question raised. An addendum may be needed to the Standard.

     - N14.32, which addresses gas generation, has been inactive. The Chair, Larry Fischer, plans to meet with a small group of subcommittee members on restarting activities. [Action Item, AI-6] The N14.5 Chair will report back to N14 Chair in June 2002 on results of the meeting.

     - [Action Item, AI-7] A general question came up about metrication. It was decided that the N14 Chair would develop a report on ANSI and N14 policy and procedures on metrication, which could be included in summary fashion in the Forward to standards developed by N14.

     - N14.6 is up for renewal, but Chair was not present to discuss the status. [Action Item, AI-8] The N14 Chair will contact the subcommittee Chair for report on status.

  2. Group 2, which included N14.2, on tie-downs; N14.7, on Type A packages; N14.8, on spent fuel casks; N14.23, on shock and vibration; N14.26, on reusable Type A packages; N14.31, also on tie-downs; N14.32, on gas generation (discussed with Group 1 Standards); and N14.33, on damaged fuel, was discussed.

- N14.2 was discussed along with N14.31. They are similar, and neither have a chair. It was decided that a new chair should be found, and that the new chair should advise N14 on combining the two draft standards. [Action Item, AI-9] Phil Gregory will search for a new chair for the combined N14.2/N14.31 subcommittee.

- N14.7 is similar to N14.26, but with somewhat broader emphasis since N14.26 deals with reusable package designs. It is suggested that the respective chairs coordinate their activities.

- N14.8 needs a new chair. [Action Item, AI-10] NRC participants will suggest a chair.

- [Action Item, AI-11] The N14 Chair will contact FRA to determine their interest in N14.25, which addresses rail tie-downs.

- N14.34 Chair, Beth Darrough, gave a briefing on the subcommittee on Human Factors, which is currently being formed. This was one of three potential new standards that were recommended for consideration during the N14 Annual Meeting in 2001.

- In addition to the Human Factors Standard it was recommended during the 2001 Annual Meeting that consideration be given to developing standards related to burnup credit. After some discussion it was suggested that two separate standards be considered, one related to design of burnup credit casks, the other related to burnup verification prior to loading a burnup credit cask. It was reported that the American Nuclear Society (ANS) had started to develop a standard for design of burnup credit systems, which include transport and storage-transport systems. The Chair of the ANS Standard on burnup credit agreed that developing a standard for burnup verification would be appropriate for ANSI N14. The next step for N14 is to identify a chair for this subcommittee. [Action Item, AI-12] Earl Easton will ask NRC staff about possible candidates to participate in the subcommittee.

- Efforts to coordinate with other standards development organizations (SDO) were discussed. SDOs to be polled for possible coordination were the American Society of Mechanical Engineers (ASME), the American Society of Testing Materials (ASTM, and the Nuclear Technical Advisory Groups (NTAG). [Action Item, AI-13] Bill Lake agreed to contact appropriate individuals from ASME/NUPACK (cask design code), and ASTM (fire testing standard).

- Rick Rawl reported on the N14 Management Committee. A major point of discussion was the composition of the Management Committee. The Committee suggested inviting representatives of the various SDOs as well as representatives of specific industry groups (e.g., Fed Ex, railroads). It was recommended that the Management Committee assist the subcommittees in maintaining and writing standards. [Action Item, AI-14] Phil Gregory volunteered to join the Management Committee.

- Rick Boyle discussed "news from DOT." Public Meetings on HM-230 are scheduled for June 4, 2002 in Chicago, and June 24, 2002 in Washington, DC. The final rule is expected in February 2003. DOT is in the process of preparing a study for Senator Reid on a broad overview of HAZMAT transport. DOT plans to participate in the National Academy of Sciences (NAS) study on risks associated with transport of radioactive material. The General Accounting Office (GAO) is reviewing transportation security.

- Rick Boyle also discussed revisions to the International Atomic Energy Agency (IAEA) Transport Regulations and changes to the revision process used to keep those regulations up-to-date.

- Earl Easton presented "News from NRC." He discussed the Package Performance Study (PPS), NRC participation in the NAS study on transportation risks, and NRC actions in response to the September 11, 2001 terrorist attacks.

- Dave Pstrak provided a discussion of the NRC rulemaking that will be conducted to achieve greater harmonization with the IAEA Transport Regulations, TS-R-1 and is being coordinated with the companion DOT rulemaking.

- Ashok Kapoor, DOE-AL discussed the DOE National Transportation Program and its activities as well as issues they are facing.

- Bill Lake presented "News from OCRWM."

- In closing Rick Rawl noted action that would be taken by the Institute of Nuclear Materials Management (INMM) to commemorate the contributions of John Arendt to standards activities.

- The meeting was adjourned at 4:30 PM.

SUMMARY OF ACTION ITEMS

The following table is provided to summarize and compile action items that appear in the minutes of the May 23, 2002 ANSI N14 Annual Meeting.

Action Items from ANSI N14 Annual Meeting (May 23, 2002)		
Designation	**Action**	**Assigned To**
AI-1	Study the possibility of dividing Government Agencies by specific interest areas. A report will be presented at the Annual Meeting in 2003.	Earl Easton
AI-2	Check with other SDOs on procedures for terminating voting members who fail to vote	Rick Rawl
AI-3	Develop a proposal for voting on various N14 ballots by e-mail. The report will be presented at the next Annual Meeting.	Rick Boyle
AI-4	Reinstate Phil Gregory as a voting member of N14.	N14 Secretary
AI-5	Presentation/discussion of ISO, and US participation in ISO through ANSI, at the next Annual Meeting.	Larry Fischer
AI-6	Chair of N14.32 will report to N14 Chair, Rick Rawl, on results of a limited subcommittee meeting on plans for moving forward on the gas generation standard. The meeting was planned for May 2002 and the report promised for June 2002.	Larry Fischer
AI-7	Report on ANSI and N14 policy and procedures on metrication.	Rick Rawl
AI-8	Contact N14.6 Chair for update of project status.	Rick Rawl
AI-9	Search for potential chairperson for a combined N14.2/N14.31 subcommittee.	Phil Gregory
AI-10	Identify potential new chair for N14.8.	NRC
AI-11	Contact FRA (Federal Rail Administration) to determine their interest in the standard on rail tie-downs, ANSI N14.25.	Rick Rawl
AI-12	Poll NRC staff for names of possible participants in a subcommittee to develop a new standard on burnup verification for burnup credit casks.	Earl Easton
AI-13	Contact appropriate individuals in ASME and ASTM for coordination with ASNSI N14 activities, and participation in future Annual Meetings.	Bill Lake
AI-14	Phil Gregory volunteered to serve on the Management Committee.	Rick Rawl

Attachment 1 – Agenda

N14 ANNUAL MEETING
May 23, 2002
8:30 AM – 5:00 PM

Department of Energy Headquarters
Forrestal Building, Room 6E069
1000 Independence Avenue, SW
Washington, DC

1. Call to Order and Introductions - R. Rawl

2. Welcome - DOE

3. Approval of Agenda

4. Report of ANSI Audit of N14
   - 4.1. Revised procedures for developing a standard

5. Results of Membership Review
   - 5.1. Interest categories
     - 5.1.1. Revised categories used in audit
     - 5.1.2. Proposed new categories
   - 5.2. Membership roster
   - 5.3. Procedure for moving non-respondent 'voting members' to 'information only'
   - 5.4. Update of contact information

6. Status Report of N14 Standards Activities
   - 6.1. Project-by-project Review - presentations by Writing Group Chairs present
   - 6.2. New Standards Projects

7. Coordination with other standards organizations
   - 7.1. ASTM
   - 7.2. ASME
   - 7.3. NTAG/ISO

8. N14 Management Committee
   - 8.1. Charter
   - 8.2. Membership
   - 8.3. Report of meeting

9. News from DOT - R. Boyle
   - 9.1. Status of TS-R-1 harmonization rulemaking

10. News from NRC - TBD
    - 10.1. Status of TS-R-1 harmonization rulemaking

11. News from DOE
    - 11.1. DOE Package Certification Program
    - 11.2. National Transportation Program
    - 11.3. Office of Civilian Radioactive Waste Management - W. Lake

12. Future revisions of TS-R-1 and the revision process - R. Boyle

13. Discussion of Issues and Other Business

14. Adjourn

Attachment 2 – Status of Projects

Committee: N14 - Packaging and Transportation of Radioactive and Non-Nuclear Hazardous Materials
Date of Report: May 1, 2002

Grouping	Document Number, Title & Project Number, & Chair	Brief Summary and Objective of Project	Project Status and Estimated Completion
Group 1 -- **Standards approved by ANSI and N14 is required to maintain (update at least every 10 years).**	N14.1 - 2001 - Packaging of Uranium Hexafluoride for Transport" Doyle Warriner, Chair	Standard provides criteria for packaging of uranium hexafluoride for transport.	Standard approved by ANSI February 1, 2001. Addendum 1 to N14.1-2001 was approved 4/3/02 and is being published.
	N14.5 - 1997 – "Leakage Tests on Packages for Shipment" L.E. Fischer, Chair	This standard specifies methods for demonstrating that Type B packages comply with the package containment requirements of Title 10 of the Code of Regulations, Part 71, September 1983, as amended, or of the International Atomic Energy Agency (IAEA) Regulations for the Safe Transport of Radioactive Materials, Safety Series No. 6, 1985 or verification, and periodic verification.	Standard approved by ANSI February 5, 1998.
	N14.6 - 1993 - "Special Lifting Devices for Shipping Containers Weighing 10,000 Pounds (4500 kg) or More for Nuclear Materials" George Townes, Chair	This standard sets forth requirements for the design, fabrication, testing, maintenance, and quality assurance programs for special lifting devices for containers weighing 10,000 pounds (4500 kg) or more for radioactive materials.	Review for an update has been completed. The reaffirmation process will start by 5/1/01. Extension has been granted by ANSI to 6/27/03.

Committee: N14 - Packaging and Transportation of Radioactive and Non-Nuclear Hazardous Materials
Date of Report: May 1, 2002

Grouping	Document Number, Title & Project Number, & Chair	Brief Summary and Objective of Project	Project Status and Estimated Completion
			Estimated Completion Date: 2003
Group 1 -- Cont.	N14.24 - 1985 (R1993) - "Domestic Barge Transport for Highway Route Controlled Quantities of Radioactive Materials" David L. Cummings, Chair	This standard identifies the organizations, equipment, operations, and documentation that are involved in domestic (i.e., between U.S. ports) barge shipments of highway route controlled quantities of radioactive material (RAM) on inland waterways and in coastwise and ocean service.	Writing Group has been formed and revision process has started. Extension granted by ANSI to 6/27/03. Estimated Completion Date: 2003
	N14.27 - 1986 (R1993) - "Carrier and Shipper Responsibilities and Emergency Response Procedures for Highway Transportation Accidents" Ella McNeil, Chair	The scope for this standard encompasses the preparation and execution by carriers and shippers of their emergency response program. It does not include the responsibilities of the "first-on-the-scene" response personnel, the actions of governmental authorities, or the specific responsibilities of the carrier or shipper during recovery operations.	Final draft submitted to N14 for balloting 4/5/02. Extension granted by ANSI to 6/27/03. Estimated Completion Date: 2003
	N14.29 - 1998 – "Guide for Writing Operating Manuals for Packaging" Dennis McCall, Co-Chair Mike Burnside, Co-Chair	This guide describes the preparation and distribution of operating manuals for the use, maintenance, and inspection of packages for shipping radioactive material. It prescribes the contents of such a manual and their arrangement, and contains a	New PINS submitted 4/5/02. (Had been administratively withdrawn 10/23/01.)

Committee: N14 - Packaging and Transportation of Radioactive and Non-Nuclear Hazardous Materials
Date of Report: May 1, 2002

Grouping	Document Number, Title & Project Number, & Chair	Brief Summary and Objective of Project	Project Status and Estimated Completion
		sample manual that can be used as a model.	Estimated Completion Date: 2003
Group 1 -- Cont.	N14.30 - 1992 - "Design, Fabrication, and Maintenance of Semi-Trailers Employed in the Transport of Weight-Concentrated Radioactive Loads" Ralph Best, Chair	This standard established the design fabrication, and maintenance requirements for the "highway" transport of weight-concentrated radioactive loads. A weight-concentrated load is any payload that exceeds 1000 pounds per lineal foot over any portion on the semi-trailer. In addition, the standard provides detailed procedures for in-service inspections, testing, and quality assurance.	Revision of this standard was started in 1998. The Chair collected information for a proposed revision and a meeting of the Writing Group was held October 22-23, 1998. A draft for a proposed revision is in preparation. A new Chair is being sought. Extension granted by ANSI to 9/30/02. Estimated Completion Date: 2002
Group 2 -- **Projects that are currently under development and may result in standards after approval by ANSI and N14.**	N14.2 - "Tiedowns for Transport of Fissile and Radioactive Containers Greater Than One-Ton Truck Transport" Vacant, Chair	This standard prescribes general requirements for securing packages of radioactive materials so they are not likely to come off their vehicles in the worst non-accident events of highway transportation. In accidents, packages secured as prescribed in this standard may come off their vehicle.	N14 balloting was completed April 23, 1999. There were several negative ballots which require resolution. The N14.2 Chair has resigned. It is proposed that N14.2 be combined with N14.31.

Committee: N14 - Packaging and Transportation of Radioactive and Non-Nuclear Hazardous Materials Date of Report: May 1, 2002			
Grouping	**Document Number, Title & Project Number, & Chair**	**Brief Summary and Objective of Project**	**Project Status and Estimated Completion**
			Estimated Completion Date: 2002
Group 2 -- Cont.	N14.7 - "Guide to the Design and Use of Shipping Packages for Type A Quantities of Radioactive Materials" R.R. Rawl, Chair	This standard provides guidance for persons responsible for activities involving the packaging of radioactive materials in Type A quantities. Its major topics include: (a) definitions; (b) description; (c) responsibilities; (d) quality assurance; (e) design; (f) fabrication; (g) regulatory requirements; (h) use; and (I) reuse.	The existing draft of the standard is being circulated to the drafting group for review. If tThe drafting group agrees that its content is still generally suitable, anybut several needed revisions will be made and it will be coordinated with the chair of writing group N14.26. The resulting draft will then be circulated to the full writing group for consideration. Estimated Completion Date: 2002
	N14.23 - "Design Basis for Resistance to Shock and Vibration of Radioactive Material Packages Greater Than One Ton in Truck Transport" Ken Gwinn, Chair	This standard specifies minimum design values for shock and vibration in highway transport, by truck or tractor-trailer combination, for radioactive materials when package weight exceeds one ton.	Balloting of the proposed standard was completed December 1, 1998. Negative ballots are currently being resolved and a second draft and re-ballot is underwaytentatively scheduled during the first quarter of 2000.. Estimated Completion Date: 20031
Group 2 -- Cont.	N14.26 - "Fabrication, Inspection, and Preventative Maintenance of Packaging for Radioactive Materials: Kevin Nelson, Chair	This standard provides requirements for the fabrication, maintenance, and inspection of reusable Type A packages (non-fissile) to ensure the packaging is: (1) properly fabricated in accordance with appropriate specifications, (2) properly maintained, (3) properly inspected, and (4)	A first draft is currently being prepared. Plans are to have a draft finalized by November 2001.

Committee: N14 - Packaging and Transportation of Radioactive and Non-Nuclear Hazardous Materials Date of Report: May 1, 2002			
Grouping	**Document Number, Title & Project Number, & Chair**	**Brief Summary and Objective of Project**	**Project Status and Estimated Completion**
		properly assembled for shipment.	Estimated Completion Date: 2002
	N14.31- "Standard Tiedowns on Legal Weight Transport System (80,000 lbs) for Packages Containing Hazardous Materials and Weighing Greater than 500 Pounds" Larry Shappert, Chair	This standard provides a method for defining an appropriate tiedown system through the use of a simple, computer-based Tiedown Stress Calculation Program. The standard describes general requirements for securing hazardous materials packages to conventional trailers. The packages have a suitable base plate (pallet or skid) or flat base, and appropriate size/arrangement of tiedown assemblies for packages can then be determined.	Comments received from Writing Group. Text and computer model need work. IAEA recently modified package securement requirements (ST-2, 1998) and results need to be considered in modifying the draft standard. Additionally, the Federal Motor Carrier Safety Administration NPRM of 12/18/01 proposes to return to an acceleration-based regulation and these requirements need to be appropriately addressed in the standard. Estimated Completion Date: 2002
	N14.32 - "Gas Generation in Packages Used for the Storage or Transport of Radioactive Materials" L.E. Fischer, Chair	The scope of this standard is gas generation in packages used for the transport or storage of radioactive materials. This standard includes, but is not limited to, the following gas generation mechanisms: radiolysis, chemical reactions, thermal expansion, and biological degradation. This standard will provide a consistent approach to testing, analysis, and mitigation of gases that could cause a pressure building up or	A PINS form has been prepared. N14 balloting of title and scope was completed and approved with a few comments. A Writing Group has been formed. Activities have been suspended until additional information has been obtained.

Committee: N14 - Packaging and Transportation of Radioactive and Non-Nuclear Hazardous Materials
Date of Report: May 1, 2002

Grouping	Document Number, Title & Project Number, & Chair	Brief Summary and Objective of Project	Project Status and Estimated Completion
		a potentially flammable mixture in a package containing radioactive materials.	Estimated Completion Date: 2002
Group 2 -- Cont.	N14.33 - "Storage and Transport of Damaged Spent Nuclear Fuel" Bill Lake, Chair	This standard defines terms related to storage and transport of damaged spent nuclear fuel. It establishes procedures for identifying damaged fuel. It provides storage and transport requirements for canning damaged fuel; procedures required to identify source terms for damaged fuel, determine the need for double containment for transport; requirements for double containment; and requirements for demonstrating spent nuclear fuel condition.	Project started in May 2000. Writing Group has been formed. PINS form has been submitted. Estimated Completion Date: 2003
Group 3 -- **Projects that are currently inactive.**	N14.8 - "Fabricating, Testing, and Inspection of Shielded Shipping Casks for Irradiated Reactor Fuel Elements" Chair to be selected.	Scope will be prepared after questionnaire is completed.	Questionnaire was completed 6/15/00. Plans are being made to develop a standard. A new Chair is being sought. Estimated Completion Date: TBD
	N14.25 - "Tiedowns for Rail Transport of Fissile and Radioactive Material Containers"	This standard applies to attachment or tiedown of containers of radioactive materials to railroad cars where the gross	A new Chair is being sought.

Committee: N14 - Packaging and Transportation of Radioactive and Non-Nuclear Hazardous Materials Date of Report: May 1, 2002			
Grouping	**Document Number, Title & Project Number, & Chair**	**Brief Summary and Objective of Project**	**Project Status and Estimated Completion**
	Vacant, Chair	weight of the containers exceeds one ton.	Estimated Completion Date: TBD
Group 3 -- Cont.	N14.34 - "Human Factors Affecting the Safety of Packaging/Transport of Radioactive Materials" Beth Darrough, Chair	This standard will address the "human/machine" interface and how it affects safety of radioactive materials packaging and transport.	PINS submitted to ANSI 4/30/02. Estimated Completion Date: TBD